

TABLE 2-1
Potential Chemical-Specific Applicable or Relevant and Appropriate Requirement:
RM 10.9 Removal Action Basis of Design Report, Lower Passaic River Study Area, New Jersey

Act/Authority		Citation	Brief Description	Applicability and Anticipated Requirements
New Jersey Water Pollution Control Act, New Jersey Water Quality Planning Act				
	Surface Water Quality Standards	N.J.A.C. 7:9B Surface Water Quality Standards	Establishes standards for the protection and enhancement of surface water resources.	Relevant and appropriate—used by the state in setting NJDPES NJPDES discharge limits and Waterfront Development Law requirements. The RM 10.9 Removal Area is classified as SE3, which has corresponding surface water quality standards for constituents such as turbidity, dissolved oxygen, and various toxic substances. The anticipated requirement is to use best management practices during dredging and to comply with these standards at designated upstream and downstream monitoring locations. Also, an the remedial action objective of the postdredge cap is to isolate the remaining sediment contaminants from the environment, including their discharge into the surface water.
New Jersey Pollutant Discharge Elimination System (NJPDES)	Surface Water Discharge Criteria	N.J.A.C. 7:14A	Establishes discharge standards to protect water quality.	Relevant and Appropriate—refer to Waterfront Development Law.

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Action-Specific Applicable or Relevant and Appropriate Requirement:

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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
Clean Water Act 33 U.S.C. 1251			
Section 401 Water Quality Certification		<p>Under Section 10 of the Rivers and Harbors Act and Section 404 of the CWA, federally authorized projects are required to obtain Water Quality Certification pursuant to Section 401 of the CWA. A Water Quality Certification (WQC) would specify the requirements to be implemented so that the proposed activity will comply with water quality standards. Activities requiring a Water Quality Certification include those where a federal permit is required, for example:</p> <ul style="list-style-type: none"> Discharge of dredged material dewatering effluent Placement of fill in waters of the United States; Temporary discharges of decant waters from dredge material disposal sites or from barges and vessels. 	Applicable. New Jersey has delegated authority. Section 401 of the CWA is implemented through compliance with the New Jersey Waterfront Development Law (NJA 12:5-3; NJAC 7:7 and 7:7E), Coastal Zone Management Rules (NJAC 7:7E-1 et seq.), and Coastal Permit Program Rules (NJAC 7:7). Refer to those sections below for anticipated substantive requirements, which are proposed to include implementation of best management practices and monitoring to meet water quality criteria during barge and dredge movement, anchoring, and operations.
Section 404 Dredge and Fill Requirements		Regulates activities in waters of the U.S. including discharge of dredged materials, placement of fill materials, and reconstruction of mudflats.	Applicable. Substantive portions are proposed to include implementation of best management practices and monitoring to meet water quality criteria during barge and dredge movement, anchoring, and operations. USACE considers Magnuson-Stevens Fishery Conservation and Management Act as well as Section 401 Water Quality Certification requirements. Refer also to Section 10 of the Rivers and Harbors Act.
CERCLA Offsite Rule	40 CFR 300.440	CERCLA wastes may only be placed in a facility operating in compliance with RCRA or other applicable federal or state requirements. Establishes criteria and a process for determining whether those facilities are acceptable.	Sediment disposal facilities must be approved by the USEPA Offsite Rule Coordinator
Pollution Prevention Regulations for Vessels	33 CFR Subchapter O	All vessels are required to have spill plans and emergency spill equipment	All fueling of boats will be at established marinas. Any fuel transfer over water necessary to run equipment on the barge will comply with Coast Guard regulatory requirements.

Comment [s1]: CERCLA and the NCP are not ARARs – they are the authority under which the action is carried out. While the NCP applies to the removal, there is no need to list it in the ARARs table.

TABLE 2-2
 Action-Specific Applicable or Relevant and Appropriate Requirement:
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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
Section 10 Rivers and Harbors Act of 1899/ Section 404 Clean Water Act			
	33 CFR 320-330	Administered by USACE. Regulates activities such as dredging, and other construction in navigable waters of the U.S.	<p>Applicable. Substantive requirements are found in the General Permit and Regional Conditions. Nationwide Permit (NWP) #38 Cleanup of Hazardous and Toxic Waste March 2012 is anticipated to be the applicable General Permit and its substantive requirements will be followed. There are no substantive Regional General Conditions associated with NWP #38; however, a Pre-Construction Notification is required as part of NWP #38 and Regional General Condition #1; therefore, consultation will occur, although a permit is not required.</p> <p>NWP 38 substantive requirements include:</p> <p>Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Work should be performed within waters of the United States during periods of low-flow or no-flow.</p> <p>No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area.</p>
Toxic Substances Control Act (TSCA)			
	40 CFR Part 761 Subpart D Storage and Disposal	Regulates PCBs and other toxic substances from manufacture to disposal.	<p>Potentially Applicable. Environmental media containing PCBs may be considered bulk PCB remediation waste. TSCA provides provisions for management of bulk PCB remediation waste at concentrations ≥ 50 ppm; certain substantive requirements may be applicable, or approvals from the TSCA regional coordinator may be appropriate. NJDEP has endorsed the Action Memo for the RM-10.9 Removal Action. No additional substantive requirements are proposed.</p>

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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
Federal Resource Conservation and Recovery Act			
Non Hazardous Solid Waste Program (Subtitle D)	40 CFR 239-258	Establishes requirements for generators, transporters, and facilities that manage non hazardous solid waste.	Relevant and appropriate. NJ has delegated authority; refer to the N.J.A.C. 7:26 Solid Waste. Depending on contaminant concentrations, disposal of contaminated sediments may occur at an upland area and may need to be managed as a solid waste (e.g., treat to get rid of free liquids), or in a manner similar to a hazardous waste prior to upland disposal. All administrative and substantive requirements of regulations will be followed for offsite activities.
Hazardous Waste Management Program (Subtitle C)	40 CFR 262-265	Establishes requirements (e.g., EPA ID numbers and manifests) for generators, transporters, and facilities that manage hazardous waste.	Relevant and appropriate. <u>Under EPA policy, contaminated media are not themselves hazardous waste, but may be subject to regulation under RCRA if they "contain" hazardous waste. Sediment that is dredged under a Water Quality Certification is exempt from being hazardous waste. EPA generally considers contaminated environmental media to contain hazardous waste: (1) when they exhibit a characteristic of hazardous waste; or (2) when they are contaminated with concentrations of hazardous constituents from listed hazardous waste that are above health-based levels.</u> NJ has delegated authority; refer to the N.J.A.C. 7:26G Hazardous Waste. However, contaminated sediments may fail hazardous waste characteristics (e.g., TCLP), and may be managed and disposed of at an upland landfill. All administrative and substantive requirements of regulations will be followed for offsite activities. If contaminated sediments are exhibit a hazardous waste characteristic (e.g., fail TCLP), disposed of at an upland location, they will may need to be managed as in a manner similar to a hazardous waste (e.g., treat to stabilize the contaminants and get rid of free liquids) prior to upland disposal.
Land Disposal Restrictions	40 CFR 268	Identifies hazardous wastes which are restricted from land disposal. All listed and characteristic hazardous waste or soil or debris contaminated by a RCRA hazardous waste and removed from a CERCLA site may not be land disposed until treated as required by LDRs.	Relevant and appropriate. Sediment that is dredged under a Water Quality Certification is exempt from being hazardous waste. However, contaminated sediments may fail hazardous waste characteristics (e.g., TCLP) and may be managed and disposed of at an upland landfill. All administrative and substantive requirements of regulations will be followed for offsite activities. If contaminated sediments are disposed of at an offsite upland location, they may need to be managed in a manner similar to a hazardous waste (e.g., treat to stabilize the contaminants and get rid of free liquids) prior to upland disposal.

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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
State of New Jersey Statutes and Rules—Waste Management and Site Remediation			
New Jersey Solid Waste Management Act	N.J.A.C. 7:26 Solid Waste & N.J.A.C. 7:26G Hazardous Waste	Establishes requirements for generators, transporters, and facilities that manage nonhazardous solid waste and hazardous waste	Substantive requirements for solid waste generators are applicable to onsite actions. All substantive and administrative requirements will be followed for offsite actions. Substantive requirements for hazardous waste generators may be relevant and appropriate.
	N.J.A.C. 7:26E Technical Requirements for Site Remediation	Establishes minimum regulatory requirements for investigation and remediation of contaminated sites in New Jersey, including surface water, sediment, and ecological evaluations.	Not an ARAR for this remedy, as no additional delineation testing of sediment is required. The NJDEP has endorsed the Action Memo; Bathymetric measurements to confirm the depth of sediment removed, and depth of cap will be proposed as part of the predesign.
NJDEP Standards for Soil Erosion and Sediment Control Act	N.J.A.C. 2:90	The Hudson-Essex and Passaic Soil Conservation District governs all soil disturbances greater than 5,000 ft ² .	Not applicable because the land disturbance will be less than 5,000 ft ² . Fill will be barged onto the site, and dredged sediment will be transported offsite via barge while wet.
NJDEP Technical Manual "The Management and Regulation of Dredging Activities and Dredged Material Disposal in New Jersey's Tidal Waters", October 1997		Not promulgated, but enforceable technical manual prepared pursuant to This is a technical manual prepared pursuant to N.J.S.A. 13:1D-111 to 1D-113.	To Be Considered. To the extent practicable, the remedy will incorporate best management practices, sampling methodologies and analytical procedures. Practices will include use of an environmental clamshell bucket with sensors to ensure complete closure of the bucket before lifting the bucket; controlled descent and lifting; prohibiting barge overflow, to reduce the creation and dispersal of suspended sediments when finer-grained sediments are dredged; deliberate placement of dredged material in the barge deliberately in the barge to prevent spillage of material overboard; use of watertight barges or scows with solid hull or sealed hull construction; no rinsing or hosing of gunwales of the dredge scows during dredging except to the extent necessary to ensure the safety of workers maneuvering on the dredge scow.
Federal Clean Air Act Section 112			
National Emission Standards for Hazardous Air Pollutants	40 CFR 61	Provides emission standards for 8 contaminants including benzene and vinyl chloride. Identifies 25 additional contaminants, as having serious health effects but does not provide emission standards for these contaminants.	Not an ARAR. The sediment is being removed and transported in the wet. Therefore, emission of air pollutants in concentrations that would trigger these regulations or adversely affect the surrounding population is not anticipated to occur. Refer to N.J.A.C. 7:27 below

Comment [s2]: How can this not be ARAR if the NJ air regulations are? See next entry.

Comment [s3]: This will need to be demonstrated/justified.

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 Action-Specific Applicable or Relevant and Appropriate Requirement:
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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
New Jersey Air Toxics Program			
Standards for Hazardous Air Pollutants	N.J.A.C. 7:27 Air Pollution Control	Rule that governs the emitting of, and such activities that result in, the introduction of contaminants into the ambient atmosphere. Controls and prohibits air pollution, particle emissions, and toxic VOC emissions	Relevant and appropriate. The sediment is being removed and transported in the wet. Therefore, emission of air pollutants in concentrations that would trigger these regulations or adversely affect the surrounding population is not anticipated to occur. Cap placement has the potential for a small amount of particulate emissions; the design includes implementation of best management practices to control these emissions.
Noise Control N.J.S.A. 13:1G-1 et seq.			
	NJAC 7:29	Regulates noise levels for certain types of activities and facilities such as commercial, industrial, community service, and public service facilities. Also provides authority to municipalities to establish noise ordinances.	Relevant and appropriate. While the dredging project does not fit the definition of any type of regulated activity, the regulation is relevant and appropriate. Emergency environmental cleanups are exempted; however, this TCRA is time critical but not an emergency. The allowable levels at a residential property/line from 7 am-10pm are 65 dBA continuous, 80 dBA impulsive, and octave band sound pressure levels as stated in the regulation. For residential 10pm- 7 am, 50 dBA continuous and 80 dBA impulsive with octave levels. At industrial, commercial, community service, and public service property lines, the maximum allowable continuous and impulsive levels are the same as daytime residential, with specific octave range levels. The 90 percent remedial design will address compliance with this regulation.

Comment [s4]: As above, this may be true, but there should be some demonstration of this.

TABLE 2-3
Potential Location-Specific Applicable or Relevant and Appropriate Requirement:
RM 10.9 Removal Action Basis of Design Report, Lower Passaic River Study Area, New Jersey

Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
Fish & Wildlife Coordination Act 16 U.S.C. 661			
	40 CFR 2 6:302(g)	Requires consultation with the U.S. Fish and Wildlife Service when a Federal department or agency proposes or authorizes any modification of any stream or other water body, and requires adequate consideration to protection of fish and wildlife resources and their habitats. Wildlife and wildlife resources include: birds, fish, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.	<u>Applicable. To the extent practicable it is required</u> Relevant and appropriate to obtain a consultation from US Fish and Wildlife Service to determine if conservation measures are appropriate for this reach of the river bed. It is anticipated that the Passaic River is a migratory pathway, nursery, and forage area for anadromous fish. However, given the relatively large size of the lower Passaic River and the depth and area of the existing channel, the project activities should not affect the ability of migratory species to migrate and/or spawn within the river and utilize their preferred habitats. Therefore, no dredge window limitation is currently planned.
Endangered Species Act, Section 7 16 U.S.C. 1531			
		Restricts activities where endangered species may be present, to protect endangered species.	<u>Applicable. To the extent practicable it is required</u> Relevant and appropriate to obtain a consultation from the NJDEP Division of Fish and Wildlife Service to determine if threatened and endangered species or habitats are likely to be present in this reach of the river bed.
National Historic Preservation Act 16 U.S.C. 470			
		Requires federal agencies to take into account the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object that is included in or is eligible for inclusion in the National Register of Historic Places.	<u>Applicable. To the extent practicable, it is required</u> Relevant and appropriate to obtain a consultation from the New Jersey Historic Preservation Office (NJHPO) to determine if historic artifacts are likely to be present in this reach of the river bed. If required by NJHPO, the design will include measures to manage such artifacts if encountered.
Federal Coastal Zone Management Act 16 U.S.C §§ 1456 (Section 307)			
	15 CFR 930.30 Federal Consistency Determination	Administered by National Oceanic and Atmospheric Administration (NOAA) and provides for management of the nation's coastal resources, to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."	Applicable to dredging. Refer to attached Table ZZ listing substantive requirements of the New Jersey Waterfront Development Law and New Jersey Coastal Zone Management (N.J.A.C. 7:7E.

Comment [s5]: Why not applicable?

Comment [s6]: This seems to be an explanation of why the CPG does not expect to comply with the fish window. This is not the place for this discussion – put it in the text somewhere. It needs to be discussed more substantively, and the discussion should be based on actual data/facts.

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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
Magnuson-Stevens Fishery Conservation and Management Act, as amended and authorized by the Sustainable Fisheries Act			
		Establishes 10 national standards for fishery conservation and management requires that other federal agencies consult with National Marine Fisheries Service (NMFS) on actions that may adversely affect essential fish habitats, which are defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."	Applicable. It is believed that the entire Lower Passaic River has been designated as EFH for various fish species. NMFS is required to recommend measures that can be taken by the consulting federal agency to conserve EFH; therefore a consultation will be initiated. It is expected that the remediation activities will result in a short-term impact to EFH, but will provide a long-term benefit to EFH, federally managed species, and all of the aquatic resources of the Passaic River. However, substantive requirements may include imposition of a dredge window; if necessary, this will be addressed during the predesign.
Flood Hazard Area Control Act N.J.S.A. 58: 16A-50 et. seq.			
	N.J.A.C. 7:13	Delineates flood hazard areas and regulates construction and development within these areas, to minimize potential damage to property, minimize degradation of water quality, protect wildlife and fisheries, and protect and enhance the public's health and welfare.	Applicable. The Removal Action will occur within a flood hazard area. Refer to New Jersey Waterfront Development Law for substantive measures.
New Jersey Waterfront Development Law (NJA 12:5-3)			
		Regulates any waterfront development, including sediment removal and fill, at or below mean high water and up to 500 ft from mean high water in the coastal zone and tidal waters of the state. Implemented through Coastal Zone Management (NJAC 7:7E) and Coastal Permit Program Rules (NJAC 7:7)	Applicable to sediment removal, capping, and including the mudflat. Refer to Coastal Zone Management and Coastal Permit Program Rules for substantive requirements.

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Act/Authority	Citation	Brief Description	Applicability and Anticipated Requirements
	Coastal Zone Management N.J.A.C. 7:7E	Provides standards for use and development of resources in NJ's coastal zone including those performed in accordance with the Waterfront Development Law. Standards for reviewing Federal Consistency Determinations under the Federal Coastal Zone Management Act and Water Quality Certificates in coastal areas under Section 401 of the Federal Clean Water Act.	The Coastal Zone Management rules are considered in developing requirements for the Water Quality Certification Proposed Substantive requirements include measures to minimize scouring and resuspension of sediments during dredging and placement of cap materials, slope management, and monitoring upstream and downstream.
	Coastal Permit Program N.J.A.C. 7:7	Establishes substantive rules regarding the use and development of coastal resources.	The Coastal Permit Program rules are considered in developing requirements for the Water Quality Certification Proposed Substantive requirements include measures to minimize scouring and re-suspension of sediments during dredging and placement of cap materials, slope management, and monitoring upstream and downstream
Tidelands Act (Riparian Lands Leases, Grants and Conveyances [NSA 12:3-1 et seq.])			
		Requires a tidelands lease, grant, or conveyance for the use of state-owned riparian lands, including sediment removal. The State of New Jersey owns riparian lands flowed by the mean high tide of a natural waterway, except for those lands in which it has already conveyed its interest in the form of a riparian grant.	Applicable to the sediment removal and backfill. Substantive requirements include that development plans must be prepared by a professional engineer, and must depict the limits of the tidelands instrument.

TABLE 2-4
RM 10.9 Surface Water Quality Standards
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Regulation	Requirement and Standards
Statements of Policy	
7:9B-1.5(a)3,4	<p>3. Therefore, point and nonpoint sources of pollutants shall be regulated to attain compliance with the Surface Water Quality Standards human health criteria outside of regulatory mixing zones.</p> <p>4. Toxic substances in waters of the State shall not be at levels that are toxic to humans or the aquatic biota, or that bioaccumulate in the aquatic biota so as to render them unfit for human consumption.</p>
7:9B-1.5(a)9	The Department uses the Integrated Water Quality Monitoring and Assessment Methods developed pursuant to N.J.A.C. 7:15-6.2 to evaluate water quality data and identify waters where water quality does not meet the Surface Water Quality Standards at N.J.A.C. 7:9B as required by Section 303(d) and 305(b) of the Federal Clean Water Act.
7:9B-1.5(c)1,2i,2ii,2iii	<p>1. The natural water quality shall be used in place of the promulgated water quality criteria of N.J.A.C. 7:9B-1.14 for all water quality characteristics that do not meet the promulgated water quality criteria as a result of natural causes.</p> <p>2. Water quality criteria are expected to be maintained during periods when nontidal or small tidal stream flows are at or greater than the MA7CD10 flow, except as provided below:</p> <p>i. For acute aquatic life protection criteria, the design flow shall be the MA1CD10 flow;</p> <p>ii. For chronic aquatic life protection criteria for ammonia, the design flow shall be the MA30CD10 flow; and</p> <p>iii. For human health criteria for carcinogens listed at N.J.A.C. 7:9B-1.14(f)7, the design flow shall be the flow which is exceeded 75 percent of the time for the appropriate "period of record" as determined by the United States Geological Survey.</p>
7:9B-1.5(e)7	7. The Department may require characterization monitoring in NJPDES permits for mercury and PCBs using the USEPA approved method 1631 for mercury (Guidelines Establishing Test Procedures for the Analysis of Pollutants; Measurement of Mercury in Water; Revisions to EPA Method 1631, 40 C.F.R. 136, Fed. Reg. 67:65876, October 29, 2002) incorporated herein by reference, as amended and supplemented, available at http://www.epa.gov/waterscience/methods/1631.html , as supplemented and amended and 1668A for PCBs (Method 1668, Revision A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS. EPA-821-R-00-002, December 1999) incorporated herein by reference, as amended and supplemented, available at http://www.epa.gov/Region8/water/wastewater/biohome/biosolidsdown/methods/1668a5.pdf .
7:9B-1.5(h)	(h) A permittee may request that a regulatory mixing zone be established by the Department for applicable criteria except as otherwise provided in this section.
7:9B-1.5(h)1ii	ii. Water quality criteria may be exceeded within the regulatory mixing zone; however, surface water quality criteria must be met at the edge of the regulatory mixing zone;
7:9B-1.5(h)1v	v. Regulatory mixing zones shall be established to assure that significant mortality does not occur to free swimming or drifting organisms;
7:9B-1.5(h)1v(2)	(2) In cases of extended regulatory mixing zones resulting from multiple, conjoined individual regulatory mixing zones, site-specific studies to demonstrate no significant mortality shall be required, taking into account factors including, time of travel, concentration, and the toxicity of the parameters in question;

TABLE 2-4
RM 10.9 Surface Water Quality Standards
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Regulation	Requirement and Standards
7.9B-1.5(h)1viii	viii. Regulatory mixing zones, including those for shorehugging plumes, shall not extend into recreational areas, potable surface water intakes (1,500 feet upstream and 500 feet downstream or to the farthest point of backwatering due to the intake, whichever is more protective), shellfish harvesting areas, threatened or endangered species habitat, and other important biological or natural resource areas;
7.9B-1.5(h)1ix	ix. The regulatory mixing zone shall not inhibit or impede the passage of aquatic biota;
7.9B-1.5(h)2ii,2ii(1),2ii(2)	ii. For discharges to tidal water bodies: (1) Regulatory mixing zones for chronic and human health criteria are limited to one fourth of the distance between the discharge point closest to the shoreline and the shoreline during average tidal conditions, or 100 meters, whichever is greater; and (2) Regulatory mixing zones for acute criteria are limited by the distances calculated in accordance with the USEPA "Technical Support Document For Water Quality-Based Toxics Control" USEPA, EPA/505/2-90-001, March 1991, incorporated herein by reference. In no case shall a regulatory mixing zone for acute criteria extend more than 100meters from the discharge point or include more than fivepercent of the total surface area of a water body based on critical ambient tidal conditions during low slack, astronomical spring tide for the applicable exposure period.
7.9B-1.5(h)3	3. A regulatory mixing zone study shall be conducted in accordance with a work plan preapproved by the Department. General protocols for conducting mixing zone studies are described in the USEPA "Technical Support Document For Water Quality-Based Toxics Control" USEPA, EPA/505/2-90-001, March 1991. In addition, the following principles apply:
7.9B-1.5(h)4,4i,4ii	4. Instream pollutant concentrations at the boundary of the regulatory mixing zone shall be determined as follows: i. The instream concentrations shall be determined using either a general mass balance equation or a mathematical model if available; or the information generated during the course of a study as described at (h)2 above. ii. If the regulatory mixing zone is based upon the guidance and procedures in the USEPA "Technical Support Document For Water Quality-Based Toxics Control" USEPA, EPA/505/2-90-001, March 1991, the Technical Support Document will also be used to determine instream concentrations at the boundary of the regulatory mixing zone.
Surface Water Quality Criteria	
7.9B-1.14(c)	(c) Unless site-specific criteria are established at (g) below, State-wide criteria apply for FW2, SE, and SC waters as listed in accordance with (d) through (f) below.
General Surface Water Quality Criteria for FW2, SE and SC Waters: (Expressed as Maximum Concentrations Unless Otherwise Noted) Criteria [TABLE]	
7.9B-1.14(d)3,3i	3. Floating, colloidal, color and settleable solids; petroleum hydrocarbons and other oils and grease i. None noticeable in the water or deposited along the shore or on the aquatic substrata in quantities detrimental to the natural biota. None which would render the waters unsuitable for the designated uses.
7.9B-1.14(d)7,7iii	7. Solids, Suspended (mg/L) (Non-filterable residue) iii. None of which would render the water unsuitable for the designated uses.

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Regulation	Requirement and Standards	
7:9B-1.14(d)8,8iii	8. Solids, Total Dissolved (mg/L) (Filterable Residue) iii. None which would render the water unsuitable for the designated uses.	
7:9B-1.14(d)12,12i,12iii,12iv,12v	12. Toxic Substances (general) i. None, either alone or in combination with other substances, in such concentrations as to affect humans or be detrimental to the natural aquatic biota, produce undesirable aquatic life, or which would render the waters unsuitable for the designated uses. iii. Toxic substances shall not be present in concentrations that cause acute or chronic toxicity to aquatic biota, or bioaccumulate within an organism to concentrations that exert a toxic effect on that organism or render it unfit for consumption. iv. The concentrations of nonpersistent toxic substances in the State's waters shall not exceed one-twentieth (0.05) of the acute definitive LC50 or EC50 value, as determined by appropriate bioassays conducted in accordance with N.J.A.C. 7:18. v. The concentration of persistent toxic substances in the State's waters shall not exceed one-hundredth (0.01) of the acute definitive LC50 or EC50 value, as determined by appropriate bioassays conducted in accordance with N.J.A.C. 7:18.	
7:9B-1.14(d)13,13i	13. Turbidity (Nephelometric Turbidity Unit-NTU) i. Maximum 30-day average of 15 NTU, a maximum of 50 NTU at any time	
Surface Water Quality Criteria for Toxic Substances (µg/L), Saline Water (SE & SC) Criteria, Human Health [TABLE]		
7:9B-1.14(f)7	Acenaphthene	990(h)
	Anthracene	40,000(h)
	Benz(a)anthracene	0.18(hc)
	3,4-Benzofluoranthene (Benzo(b)fluoranthene)	0.18(hc)
	Benzo(k)fluoranthene	1.8(hc)
	Benzo(a)pyrene (BaP)	0.018(hc)
	Chrysene	18(hc)
	Dibenz(a,h)anthracene	0.018(hc)
	Fluoranthene	140(h)
	Fluorene	5,300(h)
	Indeno(1,2,3-cd)pyrene	0.18(hc)

TABLE 2-4
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Regulation	Requirement and Standards	
	Mercury	0.051(h)(T)
	Polychlorinated biphenyls (PCBs)	0.000064(hc)
	Pyrene	4,000(h)
	2,3,7,8-Tetrachlorodibenzo -p-dioxin (TCDD)	0.000000051(hc)
	Footnotes:	
	(h) Human health noncarcinogen	
	(hc) Human health carcinogen	
	(T) Total recoverable criterion	
Surface Water Quality Criteria for Toxic Substances (µg/L), Saline Water (SE & SC) Criteria, Aquatic [TABLE]		
7:9B-1.14(f)7	Mercury	1.8(d)(s) [acute]
		0.94(d)(s) [chronic]
	Polychlorinated biphenyls (PCBs)	0.030 [chronic]
	Footnotes:	
	(d) Criterion is expressed as a function of the Water Effect Ratio (WER). For criterion in the table, WER equates to the default value of 1.0.	
	(s) Dissolved criterion	

TABLE 2-5
RM 10.9 Effluent Standards Applicable to Direct Discharges to Surface Water and Indirect
Discharges to Domestic Treatment Works
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Regulation	Effluent Standard	
Appendix B Effluent Standards for Site Remediation Projects, SE Waters, Monthly Average (µg/L) [TABLE]		
7:14A-12	Anthracene	22
	Fluoranthene	25
	Fluorene	22
	Naphthalene	22
	Phenanthrene	22
	Pyrene	25
Appendix B Effluent Standards for Site Remediation Projects, SE Waters, Daily Maximum (µg/L) [TABLE]		
7:14A-12	Anthracene	59
	Benzo (a) Anthracene	10
	Benzo (a) Pyrene	20
	Benzo(b)fluoranthene	10
	Benzo (k) Fluoranthene	20
	Chrysene	20
	Dibenzo (a,h) Anthracene	20
	Fluoranthene	68
	Fluorene	59
	Indeno (1,2,3-cd) Pyrene	20
	Naphthalene	59
	Phenanthrene	59
	Pyrene	67
	Mercury	1
	2,3,7,8-Tetrachlorodibenzo-p-Dioxin	0.01
	PCBs-1242, 1254, 1221, 1232, 1248, 1260, 1016	0.5

TABLE 2-6

RM 10.9 Coastal Zone Management Applicable or Relevant and Appropriate Substantive Requirements

RM 10.9 Removal Action Basis of Design Report, Lower Passaic River Study Area, New Jersey

Regulation	Substantive Requirement Discussion
7:7E-3.6 Submerged Vegetation Habitat	Water areas documented as previously supporting rooted and submerged vascular plants are considered to be submerged vegetation special areas. The presence of vascular vegetation in the project area needs to be evaluated. It is anticipated that any effects on vascular vegetation may not be observed, and there would be only low biomass mud flats. Therefore, no impacts to submerged vegetation habitat are expected and the Removal Action would comply with this policy.
7:7E-3.12 Submerged Infrastructure Routes	There may be submerged private or public utility features within the project area. Ground-intrusive activity remediation contractor has notified the New Jersey OneCall System and has complied with New Jersey's requirements. The contractor will be responsible for the safety, maintenance, protection, and final restoration to the same as what existed preconstruction. This applies to not only submerged infrastructure but also all surface and streets, structures, waterways, and other properties at or near the site. Utilities identified will be placed on all plans detailing excavation and stabilization activities to assure the utilities' protection and compliance with the Act to the extent possible. As a result, the Removal Action is expected to comply with this policy.
7:7E-3.15 Intertidal and Subtidal Shallows	Project disturbances may occur within any intertidal and subtidal areas. The goal of the TCRA is to remediate contaminated sediment and remove contaminant mass that is a potential source of contamination to the RM 10.9. Therefore, the proposed projects in compliance with this rule.
7:7E-3.25 Flood Hazard Areas	Even though the project is located within the Flood Hazard Area, no impact on the flood hazard area is anticipated. The proposed project does not require permanent structures that may obstruct tidal and stormwater flows. Temporary changes to drainage patterns occurring during construction will mimic preconstruction conditions, and diversions will be sized to carry frequent storm events. Following sediment removal, the areas will be backfilled with a cap which will provide no net fill. The project will not permanently alter the Flood Hazard Area Control Rules (N.J.A.C. 7:13) and the associated substantive permit requirements. This complies with 3.25, since no permanent development will occur within the Flood Hazard Area creating an obstruction to the flow of water.
7:7E-3.26 Riparian Zones	The New Jersey Flood Hazard Area Control Rules 7:13-4.1(a) 4 state that a riparian zone exists along every regulated water. The Riparian Zone includes the land and vegetation within each regulated water, as well as the land and vegetation within a certain distance of each regulated water. As defined in N.J.A.C. 7:13-4.1, the Riparian Zone is 50 feet landward from the top of the stream bank. On-site activities within the riparian zone include the construction support area. No fill material will be stockpiled in the on-site Riparian Zone. The construction support area is currently disturbed and contains sparse vegetation as a result of the compacted soil and subsurface materials. In addition, soil erosion and sediment control measures will be implemented to protect the surrounding Riparian Zone beyond the work area. The channels will be restored with a protective cap. The cap's top elevation will be no higher than the existing sediment surface, allowing flow in and out of areas similar to preconstruction conditions. The removal of any vegetation from the mudflat will be limited to the workspace and areas will be allowed to revegetate naturally following remediation.
7:7E-3.36 Historic and Archaeological Resources	The New Jersey and National Registers of Historic Places and the NJDEP Landscape Project mapping, which contains the boundaries of Critical Environmental and Historic Sites of the New Jersey State Development and Redevelopment Plan, will be reviewed. Additionally, there will be consultation with the New Jersey Historic Preservation Office (NJ-HPO) to confirm that the project complies with state and federal policies regarding historic and archaeological resources. No impact to cultural resources is anticipated.
7:7E-3.38 Endangered or Threatened Wildlife or Plant Species Habitats	There will be consultation with NJDEP New Jersey Natural Heritage Program and the National Marine Fisheries Service (NMFS) to confirm that the project complies with all state and federal policies and conditions regarding endangered or threatened wildlife. The NMFS will be contacted to confirm compliance with the Endangered Species Act, the Fish and Wildlife Coordination Act, and the Magnuson-Stevens Fishery Conservation and Management Act.
7:7E-3.39 Critical Wildlife Habitats	There will be consultation with NJDEP to confirm that the project complies with all state and federal policies and conditions regarding critical wildlife habitats.
7:7E-3.41 Special Hazard Areas	Special hazard areas include areas with a known actual or potential hazard to public health, safety, and welfare, onto public or private property, such as where hazardous substances, as defined at N.J.S.A. 58:10-23.11b-k, are used or disposed of, including adjacent areas and areas of hazardous material contamination. Typically, approvals from NJDEP's Division of Solid and Hazardous Waste are obtained before beginning hazardous substance investigations or cleanup activities at contaminated sites. The LFR site is a listed RCRA site and therefore is known to contain potentially hazardous materials. The purpose of this project is to remediate the hazardous materials contained within the RM 10.9 site. Investigations have been conducted to indicate contamination levels and to provide data for designing remediation procedures. Contaminated sediments will be handled using best management practices (BMPs) to reduce health and safety hazards to the extent practical.
7:7E-3.47 Geodetic Control Reference Marks	The National Geodetic Survey Datasheet page (http://www.ngs.noaa.gov/cgi-bin/datasheet.pl), will be accessed to determine whether there are survey markers located within the RM 10.9 site, to assure compliance with this policy.

Comment [s7]: Each one of these entries has an opinion as to whether this requirement will be met, and many of the statements have the phrase that they "anticipate." It would be better to demonstrate that the requirement wouldn't apply or will be met, rather than opining.

Comment [s8]: This needs a bit more discussion. Is no net fill sufficient to avoid flooding?

TABLE 2-6

RM 10.9 Coastal Zone Management Applicable or Relevant and Appropriate Substantive Requirements

RM 10.9 Removal Action Basis of Design Report, Lower Passaic River Study Area, New Jersey

Regulation	Substantive Requirement Discussion
7:7E-3.50 Lands and Waters Subject to Public Trust Rights	Lands and waters subject to public trust rights are tidal waterways and their shores, including both lands now or formerly below the MHW line, and shores above the MHW line. (See the section discussing Subchapter 8, Public Trust Rights (7:7E-8.11) for detailed information regarding public trust rights and how the project is in compliance with this policy.)
Subchapter 4. General Water Areas	
7:7E-4.7 New Dredging.	General Water Areas are all water areas located below either the spring high water line or the normal water level of nontidal water that are subject to the Coastal Zone Management rules and to Special Area rules. There are 22 General Water Areas identified in the regulations and the following sections summarize potential ARARs. New dredging is the removal of sediment that does not meet the definition of maintenance dredging at N.J.A.C. 7:7E-4.6. Maintenance dredging is the removal of accumulated sediment from previously authorized and legally dredged navigation and access channels, marinas, lagoons, canals, or boat moorings for the purpose of maintaining a previously authorized water depth and width for safe navigation. Maintenance dredging would not apply to this project because the purpose of this dredging is not for maintaining a previously authorized water depth and width for safe navigation. The dredging of sediment associated with the TCRA is strictly for removing contaminated sediments from the waterway. As required with any "new dredging", environmental impacts will be minimized to the maximum extent feasible; the dredge area is reduced to the minimum extent practical; dredging is anticipated to have no adverse impacts on groundwater resources; and no dredging will occur within 10 feet of any wetlands. There are no wetlands in the project area, and dredging shall be accomplished consistent with conditions as appropriate to the dredging method to reduce the escape of contaminated material to the extent possible, and to prevent potential adverse environmental impacts to the surrounding area. Dredging will be performed carefully using a clamshell bucket, and implementing best management practices, as described in Section 4. Because the sediment and soil excavation methods will limit downstream turbidity, limit the suspension of contaminants, reduce the bioavailability of contaminants, and improve the health of the water body, the Removal Action is in compliance with this policy.
7:7E-4.10 Filling	By definition, "filling" is the deposition of material including, but not limited to, sand, silt, earth, and dredged material, into water areas for the purpose of raising water bottom elevations to create land areas. This policy is not applicable to the project because the purpose of placing material on the site is not for raising the original water bottom elevations or to create additional land. Although the technical definition is not applicable, a cap designed to reduce the bioavailability of contaminants will be placed within the stream channels as part of restoration activities to provide a substrate for the benthic community rehabilitation. The project is in compliance with this rule because the purpose of the fill is not for raising water bottom elevations for creating new land areas, and all fill will be clean sand.
Subchapter 6. General Location Policies	
7:7E-6.2 Basic Location Rule	The project is in an area that is environmentally degraded. The site is presumed not to be considered as exceptional wildlife habitat. This is a known contaminated site. This project will improve public health and safety related to the site because contaminated sediments will be removed and replaced with new, clean sediments. Therefore this project complies with this subchapter.
7:7E-6.3 Secondary Impacts	Secondary impacts are the effects of additional development likely to be constructed as a result of the approval of a particular proposal. Secondary impacts can also include traffic increases, increased recreational demand, and any other offsite impacts generated by onsite activities that affect the site and surrounding region. Remediation of this site is not likely to stimulate secondary development because of its location within the water body areas. Rather, the objective is to restore the water body to its designated uses.
Subchapter 8. Resource Rules	
7:7E-8.4 Water Quality	The Lower Passaic River is categorized as an SE3 water body. The designated uses of SE3 water bodies per NJAC 7:9B-1.12 are: 1. Secondary contact recreation; 2. Maintenance and migration of fish populations; 3. Migration of diadromous fish; 4. Maintenance of wildlife; and 5. Any other reasonable uses. Because the remedial action objectives include reducing the bioavailability of the contaminants, the New Jersey surface water quality standards may be considered as chemicals-specific ARARs. The project is in compliance with this subchapter because any potential impacts to surface water will be minimized by the best management practices and sediment control techniques. The overall remediation project is designed to improve long-term water quality in the area.
7:7E-8.11 Public Trust Rights	Public trust rights to tidal waterways and their shores established by the Public Trust Doctrine include public access, which is the ability of the public to pass physically and visually to, from, and along lands and waters subject to public trust rights, as defined at N.J.A.C. 7:7E-3.50, as well as to use these lands and waters for recreational activities. Public trust rights also include the right to perpendicular and linear access. Public access ways and public access areas provide a means for the public to pass along and use lands and waters subject to public trust rights. Because this is a CERCLA action, formal public access will not be provided and the work area in the water will be delineated. The nature of the project will be the cleanup of hazardous materials. No structural development is proposed.

